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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,117	09/28/2000	Hideo Miyake	1614.1082	8617

21171 7590 06/07/2004

STAAS & HALSEY LLP  
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1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

KIM, HONG CHONG

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 06/07/2004

18

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/671,117	MIYAKE ET AL.	
	Examiner	Art Unit	
	Hong C Kim	2186	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/12/04.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13, 15, 17 and 20-29 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 17, 20 and 25-27 is/are allowed.
- 6) ☒ Claim(s) 13, 21-24 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☒ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
     a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |



## Detailed Action

1. Claims 13, 15 17, 20-29 are presented for examination. This office action is in response to the amendment filed on 4/12/04.

### ***Claim Rejections - 35 USC ' 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13, 21-24 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Biggs et al. (Biggs) US Patent 5,410,669.

As to claim 24, Biggs discloses the invention as claimed. Biggs discloses a method of controlling a computer having a main memory (col. 2 line 55) for which a first memory space of a memory map (col. 2 line 44, memory map reads on this limitation) and a cache memory (abstract) comprising: assigning a second address space (abstract lines 9-10) of the memory map (col. 2 lines 35-41, different portions of the memory map reads on this limitation) which separate from the first address space of the main memory and is fixed (abstract lines 9-10, since a register is used to set the address of cache memory when the cache memory is acting as the RAM at a given time period, the second address space is fixed at that given time period. In other words, a fixed address space map is inclusive of a dynamic address space map) for the cache

memory only when the cache memory <sup>12h</sup>~~only~~ is acting as a random access memory (col. 4 line 46 thru col. 5 line 25).

As to claim 23, Biggs discloses the invention as claimed. Biggs discloses a system which controls a cache memory (abstract) that is connected to a main memory (col. 2 line 55) with a first address space of a memory map (col. 2 line 44, memory map reads on this limitation) and capable of acting as a random access memory (Fig. 3 and col. 4 line 46 thru col 5 line 25) comprising the steps of: a determine unit which determines whether the cache memory is acting as the random access memory (col. 2 lines 35-41 and col. 4 lines 54+) and an assigning unit which assigns a second address space (abstract lines 9-10) of the memory map (col. 2 lines 35-41, different portions of the memory map reads on this limitation) which separate from the first address space of the main memory and is fixed (abstract lines 9-10, since a register is used to set the address of cache memory when the cache memory is acting as the RAM at a given time period, the second address space is fixed at that given time period. In other words, a fixed address space map is inclusive of a dynamic address space map), for the cache memory <sup>12h</sup>~~only~~ when the cache memory is acting as the random access memory (col. 4 line 46 thru <sup>only</sup>col 5 line 25).

As to claims 13 and 22, Biggs discloses the invention as claimed. Biggs discloses a method of controlling a cache memory is connected to a main memory (col.

2 line 55) with a first address space of a memory map (col. 2 line 44, memory map reads on this limitation) and capable of acting as a random access memory (Fig. 3 and col. 4 line 46 thru col 5 line 25) comprising the steps of: determining whether the cache memory is acting as the random access memory (col. 2 lines 35-41 and col. 4 lines 54+) and assigning a second address space (abstract lines 9-10) of the memory map (col. 2 lines 35-41, different portions of a memory map reads on this limitation) which separate from the first address space of the main memory and is fixed (abstract lines 9-10, since a register is used to set the address of cache memory when the cache memory is acting as the RAM at a given time period, the second address space is fixed at that given time period. In other words, a fixed address space map is inclusive of a dynamic address space map), for the cache memory only when the cache memory is acting as the random access memory (col. 4 line 46 thru col 5 line 25) and a bus control unit (Fig. 1 Ref. 20) .

As to claim 21, Biggs discloses the invention as claimed above. Biggs further discloses a computer including a main memory and a cache memory (Fig. 1 Ref. 14), the main memory having a first address space (Fig. 1 Ref. 30) and the cache memory being capable of acting as a RAM (abstract) comprising: a determination unit (col. 4 line 46 thru col 5 line 25), an assignment unit (col. 4 line 46 thru col 5 line 25), a bus control unit (Fig. 1 Ref. 20), a peripheral system (Fig. 1 Ref. 22), and access control unit (abstract).

As to claims 28-29, Biggs discloses the invention as claimed above. Biggs further discloses the first and the second address space is fixed in the memory map (col. 2 lines 35+).

***Allowable Subject Matter***

3. Claims 15, 17, 20, and 25-27 are allowed.

***Response to Amendment***

4. Applicant's arguments filed on 4/12/04 have been fully considered but they are not deemed to be persuasive.

Applicant's remarks that the references not teaching "a second address space of a memory map --- is fixed for the cache memory only" is not considered persuasive. Biggs discloses "a second address space of a memory map --- is fixed for the cache memory only" (abstract lines 9-10, since a register is used to set the address of cache memory when the cache memory is acting as the RAM at a given time period, the second address space is fixed at that given time period. In other words, a fixed address space map is inclusive of a dynamic address space map). Therefore broadly written claims are disclosed by the references cited.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. ' 1.111(c).

When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to

assist examiner to locate the appropriate paragraphs.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matt Kim, can be reached on (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

**Any response to this action should be mailed to:**



Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to TC-2100:**  
Official (703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121  
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

HK   
Primary Patent Examiner  
June 2, 2004